

DOCKET NO.: 306956US26CIP

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF: :
DAYNA M. DECKER : EXAMINER: PRICE, CARL D.
SERIAL NO: 10/759,508 :
FILED: JANUARY 15, 2004 : GROUP ART UNIT: 3749
FOR: CANDLE HAVING A PLANAR :
WICK AND METHOD OF AND
EQUIPMENT FOR MAKING SAME

DECLARATION UNDER 37 C.F.R. §1.132

COMMISSIONER FOR PATENTS
ALEXANDRIA, VIRGINIA 22313

SIR:

I, Dayna DECKER, hereby declare:

1. I am the sole inventor of the above-captioned patent application.
2. I am a principal of Lumetique, Inc., the assignee of the above-captioned patent application.
3. I am familiar with the references cited against the above-captioned patent application in the March 6, 2008 Office Action. I have worked with the products and methods such as those described in the above-captioned patent application and the cited references.
4. I and/or those under my direct supervision carried out the following experimentation.
 - a. Wicks were prepared from various woods having various properties and dimensions, as described in the TABLES A-P below. For each wick, a body of meltable fuel

including paraffin and 10% fragrance was prepared in a glass jar having a diameter of 3 inches. Each wick was provided in a respective glass so that the wick extended 0.125 to 0.375 inches above the top surface of the body of meltable fuel. The resulting candles were observed, while burning for up to 6 hours.

b. The results of the observation are set forth in the TABLES A-P below.

TABLE A

| Wood Type | Resin Content | Moisture Content (%) | Grain Configuration | Wick Width (inches) | Wick Thickness (inches) | Observations |
|-----------|---------------|----------------------|---------------------|---------------------|-------------------------|-------------------|
| Aspen | Low-Med | 15 | Figured | 0.375 | 0.019 | Self-Extinguished |
| Aspen | Low-Med | 15 | Figured | 0.375 | 0.021 | Self-Extinguished |
| Aspen | Low-Med | 15 | Figured | 0.375 | 0.023 | Self-Extinguished |
| Aspen | Low-Med | 15 | Figured | 0.375 | 0.025 | Self-Extinguished |
| Aspen | Low-Med | 15 | Figured | 0.375 | 0.027 | Self-Extinguished |
| Aspen | Low-Med | 15 | Figured | 0.375 | 0.029 | Self-Extinguished |

TABLE B

| Wood Type | Resin Content | Moisture Content (%) | Grain Configuration | Wick Width (inches) | Wick Thickness (inches) | Observations |
|------------|---------------|----------------------|---------------------|---------------------|-------------------------|---|
| Satin-wood | None-Low | 3 | Straight | 0.375 | 0.019 | Self-Extinguished |
| Satin-wood | None-Low | 3 | Straight | 0.375 | 0.021 | Self-Extinguished |
| Satin-wood | None-Low | 3 | Straight | 0.375 | 0.023 | Self-Extinguished |
| Satin-wood | None-Low | 3 | Straight | 0.375 | 0.025 | Inconsistent Flashing Flame, Sputtering Noise |
| Satin-wood | None-Low | 3 | Straight | 0.375 | 0.027 | Inconsistent Flashing Flame, |

| | | | | | | |
|------------|----------|---|----------|-------|-------|---|
| | | | | | | Sputtering Noise |
| Satin-wood | None-Low | 3 | Straight | 0.375 | 0.029 | Inconsistent Flashing Flame, Sputtering Noise |

TABLE C

| Wood Type | Resin Content | Moisture Content (%) | Grain Configuration | Wick Width (inches) | Wick Thickness (inches) | Observations |
|-----------|---------------|----------------------|---------------------|---------------------|-------------------------|--|
| Cypress | Med-High | 10 | Spiral | 0.375 | 0.019 | Self-Extinguished |
| Cypress | Med-High | 10 | Spiral | 0.375 | 0.021 | Self-Extinguished |
| Cypress | Med-High | 10 | Spiral | 0.375 | 0.023 | Self-Extinguished |
| Cypress | Med-High | 10 | Spiral | 0.375 | 0.025 | Self-Extinguished |
| Cypress | Med-High | 10 | Spiral | 0.375 | 0.027 | Self-Extinguished |
| Cypress | Med-High | 10 | Spiral | 0.375 | 0.029 | Very Low Flame, then Self-Extinguished |

TABLE D

| Wood Type | Resin Content | Moisture Content (%) | Grain Configuration | Wick Width (inches) | Wick Thickness (inches) | Observations |
|-----------|---------------|----------------------|---------------------|---------------------|-------------------------|----------------|
| Bamboo | None-Low | 15 | Straight/ Figured | 0.375 | 0.019 | Does Not Light |
| Bamboo | None-Low | 15 | Straight/ Figured | 0.375 | 0.021 | Does Not Light |
| Bamboo | None-Low | 15 | Straight/ Figured | 0.375 | 0.023 | Does Not Light |
| Bamboo | None-Low | 15 | Straight/ Figured | 0.375 | 0.025 | Does Not Light |
| Bamboo | None-Low | 15 | Straight/ Figured | 0.375 | 0.027 | Does Not Light |
| Bamboo | None-Low | 15 | Straight/ Figured | 0.375 | 0.029 | Does Not Light |

TABLE E

| Wood Type | Resin Content | Moisture Content (%) | Grain Configuration | Wick Width (inches) | Wick Thickness (inches) | Observations |
|------------------|----------------------|-----------------------------|----------------------------|----------------------------|--------------------------------|---------------------|
| Maple | None-Low | 5 | Cross | 0.375 | 0.019 | Very Low Flame |
| Maple | None-Low | 5 | Cross | 0.375 | 0.021 | Very Low Flame |
| Maple | None-Low | 5 | Cross | 0.375 | 0.023 | Very Low Flame |
| Maple | None-Low | 5 | Cross | 0.375 | 0.025 | Very Low Flame |
| Maple | None-Low | 5 | Cross | 0.375 | 0.027 | Very Low Flame |
| Maple | None-Low | 5 | Cross | 0.375 | 0.029 | Flame Too High |

TABLE F

| Wood Type | Resin Content | Moisture Content (%) | Grain Configuration | Wick Width (inches) | Wick Thickness (inches) | Observations |
|------------------|----------------------|-----------------------------|----------------------------|----------------------------|--------------------------------|---------------------|
| Wenge | None | 2 | Straight | 0.375 | 0.019 | Self-Extinguished |
| Wenge | None | 2 | Straight | 0.375 | 0.021 | Self-Extinguished |
| Wenge | None | 2 | Straight | 0.375 | 0.023 | Self-Extinguished |
| Wenge | None | 2 | Straight | 0.375 | 0.025 | Self-Extinguished |
| Wenge | None | 2 | Straight | 0.375 | 0.027 | Self-Extinguished |
| Wenge | None | 2 | Straight | 0.375 | 0.029 | Self-Extinguished |

TABLE G

| Wood Type | Resin Content | Moisture Content (%) | Grain Configuration | Wick Width (inches) | Wick Thickness (inches) | Observations |
|------------------|----------------------|-----------------------------|----------------------------|----------------------------|--------------------------------|---------------------|
| Cherry | Med-High | 6 | Straight | 0.375 | 0.019 | Self-Extinguished |
| Cherry | Med-High | 6 | Straight | 0.375 | 0.021 | Self-Extinguished |

| | | | | | | |
|--------|----------|---|----------|-------|-------|---|
| Cherry | Med-High | 6 | Straight | 0.375 | 0.023 | Low Flame, Good Crackling Sound |
| Cherry | Med-High | 6 | Straight | 0.375 | 0.025 | Good Flame, Good Crackling Sound |
| Cherry | Med-High | 6 | Straight | 0.375 | 0.027 | Good Flame, Good Crackling Sound |
| Cherry | Med-High | 6 | Straight | 0.375 | 0.029 | High Flame |
| Cherry | Med-High | 6 | Straight | 0.375 | 0.031 | High Flame |
| Cherry | Med-High | 6 | Straight | 0.375 | 0.033 | High Flame |
| Cherry | Med-High | 6 | Straight | 0.375 | 0.035 | High Flame |

TABLE H

| Wood Type | Resin Content | Moisture Content (%) | Grain Configuration | Wick Width (inches) | Wick Thickness (inches) | Observations |
|------------------|----------------------|-----------------------------|----------------------------|----------------------------|--------------------------------|---------------------|
| Oak | Low-Med | 12 | Figured | 0.375 | 0.019 | Does Not Light |
| Oak | Low-Med | 12 | Figured | 0.375 | 0.021 | Does Not Light |
| Oak | Low-Med | 12 | Figured | 0.375 | 0.023 | Does Not Light |
| Oak | Low-Med | 12 | Figured | 0.375 | 0.025 | Does Not Light |
| Oak | Low-Med | 12 | Figured | 0.375 | 0.027 | Does Not Light |
| Oak | Low-Med | 12 | Figured | 0.375 | 0.029 | Very Low Flame |

TABLE I

| Wood Type | Resin Content | Moisture Content (%) | Grain Configuration | Wick Width (inches) | Wick Thickness (inches) | Observations |
|------------------|----------------------|-----------------------------|----------------------------|----------------------------|--------------------------------|---------------------|
| Rosewood | Low | 4 | Burled | 0.375 | 0.019 | Does Not Light |
| Rosewood | Low | 4 | Burled | 0.375 | 0.021 | Does Not Light |
| Rosewood | Low | 4 | Burled | 0.375 | 0.023 | Does Not |

| | | | | | | |
|----------|-----|---|--------|-------|-------|---|
| | | | | | | Light |
| Rosewood | Low | 4 | Burled | 0.375 | 0.025 | Medium Flame, Smoke, Sputtering Noise |
| Rosewood | Low | 4 | Burled | 0.375 | 0.027 | Medium Flame, Smoke, Sputtering Noise |
| Rosewood | Low | 4 | Burled | 0.375 | 0.029 | Medium Flame, Smoke, Sputtering Noise |

TABLE J

| Wood Type | Resin Content | Moisture Content (%) | Grain Configuration | Wick Width (inches) | Wick Thickness (inches) | Observations |
|-----------|---------------|----------------------|---------------------|---------------------|-------------------------|-------------------|
| Cedar | Med-High | 12 | Straight | 0.375 | 0.019 | Does Not Light |
| Cedar | Med-High | 12 | Straight | 0.375 | 0.021 | Does Not Light |
| Cedar | Med-High | 12 | Straight | 0.375 | 0.023 | Self-Extinguished |
| Cedar | Med-High | 12 | Straight | 0.375 | 0.025 | Self-Extinguished |
| Cedar | Med-High | 12 | Straight | 0.375 | 0.027 | Low Flame |
| Cedar | Med-High | 12 | Straight | 0.375 | 0.029 | Self-Extinguished |

TABLE K

| Wood Type | Resin Content | Moisture Content (%) | Grain Configuration | Wick Width (inches) | Wick Thickness (inches) | Observations |
|-----------|---------------|----------------------|---------------------|---------------------|-------------------------|----------------------|
| Poplar | Low | 7 | Straight | 0.375 | 0.019 | No Flame |
| Poplar | Low | 7 | Straight | 0.375 | 0.021 | No Flame |
| Poplar | Low | 7 | Straight | 0.375 | 0.023 | Low Flame |
| Poplar | Low | 7 | Straight | 0.375 | 0.025 | Low Flame, Crackling |

| | | | | | | |
|--------|-----|---|----------|-------|-------|---|
| | | | | | | Sound |
| Poplar | Low | 7 | Straight | 0.375 | 0.027 | Good Flame, Good Crackling Sound |
| Poplar | Low | 7 | Straight | 0.375 | 0.029 | Good Flame, Good Crackling Sound |
| Poplar | Low | 7 | Straight | 0.375 | 0.031 | Smoke |
| Poplar | Low | 7 | Straight | 0.375 | 0.033 | Smoke |

TABLE L

| Wood Type | Resin Content | Moisture Content (%) | Grain Configuration | Wick Width (inches) | Wick Thickness (inches) | Observations |
|-----------|---------------|----------------------|---------------------|---------------------|-------------------------|-------------------|
| Elm | Low-Med | 12 | Interlocked | 0.375 | 0.019 | Self-Extinguished |
| Elm | Low-Med | 12 | Interlocked | 0.375 | 0.021 | Self-Extinguished |
| Elm | Low-Med | 12 | Interlocked | 0.375 | 0.023 | Self-Extinguished |
| Elm | Low-Med | 12 | Interlocked | 0.375 | 0.025 | Self-Extinguished |
| Elm | Low-Med | 12 | Interlocked | 0.375 | 0.027 | Self-Extinguished |
| Elm | Low-Med | 12 | Interlocked | 0.375 | 0.029 | Self-Extinguished |

TABLE M

| Wood Type | Resin Content | Moisture Content (%) | Grain Configuration | Wick Width (inches) | Wick Thickness (inches) | Observations |
|-----------|---------------|----------------------|---------------------|---------------------|-------------------------|-------------------|
| Beech | None-Low | 10 | Cross | 0.375 | 0.019 | No Flame |
| Beech | None-Low | 10 | Cross | 0.375 | 0.021 | No Flame |
| Beech | None-Low | 10 | Cross | 0.375 | 0.023 | No Flame |
| Beech | None-Low | 10 | Cross | 0.375 | 0.025 | Low Flame |
| Beech | None-Low | 10 | Cross | 0.375 | 0.027 | Self-Extinguished |
| Beech | None-Low | 10 | Cross | 0.375 | 0.029 | Self-Extinguished |

TABLE N

| Wood Type | Resin Content | Moisture Content (%) | Grain Configuration | Wick Width (inches) | Wick Thickness (inches) | Observations |
|-----------|---------------|----------------------|---------------------|---------------------|-------------------------|--------------|
| Birch | Low | 15 | Figured Burl | 0.375 | 0.019 | No Flame |
| Birch | Low | 15 | Figured Burl | 0.375 | 0.021 | No Flame |
| Birch | Low | 15 | Figured Burl | 0.375 | 0.023 | No Flame |
| Birch | Low | 15 | Figured Burl | 0.375 | 0.025 | No Flame |
| Birch | Low | 15 | Figured Burl | 0.375 | 0.027 | No Flame |
| Birch | Low | 15 | Figured Burl | 0.375 | 0.029 | No Flame |

TABLE O

| Wood Type | Resin Content | Moisture Content (%) | Grain Configuration | Wick Width (inches) | Wick Thickness (inches) | Observations |
|-----------|---------------|----------------------|---------------------|---------------------|-------------------------|-------------------|
| Zebrano | Low | 10 | Spiral Figured | 0.375 | 0.019 | Self-Extinguished |
| Zebrano | Low | 10 | Spiral Figured | 0.375 | 0.021 | Self-Extinguished |
| Zebrano | Low | 10 | Spiral Figured | 0.375 | 0.023 | Self-Extinguished |
| Zebrano | Low | 10 | Spiral Figured | 0.375 | 0.025 | Self-Extinguished |
| Zebrano | Low | 10 | Spiral Figured | 0.375 | 0.027 | Self-Extinguished |
| Zebrano | Low | 10 | Spiral Figured | 0.375 | 0.029 | Self-Extinguished |

TABLE P

| Wood Type | Resin Content | Moisture Content (%) | Grain Configuration | Wick Width (inches) | Wick Thickness (inches) | Observations |
|-----------|---------------|----------------------|---------------------|---------------------|-------------------------|--------------|
| Lacewood | Low | 5 | Tight Burl | 0.375 | 0.019 | No Flame |
| Lacewood | Low | 5 | Tight Burl | 0.375 | 0.021 | No Flame |
| Lacewood | Low | 5 | Tight Burl | 0.375 | 0.023 | No Flame |
| Lacewood | Low | 5 | Tight Burl | 0.375 | 0.025 | No Flame |
| Lacewood | Low | 5 | Tight Burl | 0.375 | 0.027 | No Flame |
| Lacewood | Low | 5 | Tight Burl | 0.375 | 0.029 | No Flame |

5. As is evident from the observations in TABLES A-P above, candles including wicks formed from poplar or cherry, as in claim 159 of the above-captioned patent application, candles including wicks formed from wood having substantially straight grains aligned substantially in the height dimension and a moisture content of from 6 to 8 percent, as in claim 179, and candles including wicks having thicknesses of from 0.023 to 0.028 inches, as in claim 199, provide unexpected, superior burning properties (Good Flame, Good Crackling Sound) relative to candles including wicks that do not possess such features. These results are objective evidence of the improvements of the candles or candle apparatus of claims 159, 179 and 199 over candles as in SE 9903818 to Ebeling ("Ebeling") (cited in the outstanding Office Action in the above-captioned patent application) and thus these results rebut any suggestion that it would have been obvious to modify the candles of Ebeling in view of the teachings of the other cited references.

Application No. 10/759,508
Declaration Under 37 C.F.R. §1.132

6. All statements made herein of my own knowledge are true, and all statements made on information and belief are believed to be true; these statements were made with the knowledge that willful false statements are punishable by fine and/or imprisonment under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of this application or any patent issuing therefrom.

Date:

9-5-08
Dayna DECKER